Defense Information Infrastructure (DII)

Common Operating Environment (COE)

Version 3.2.0.0

Version Description Document for the Kernel Patch 1

(Solaris 2.5.1)

September 26, 1997

Prepared for:

Defense Information Systems Agency

Prepared by:

Inter-National Research Institute (INRI)
12200 Sunrise Valley Drive, Suite 300
Reston, Virginia 20191

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> **NOTE**: `Courier font` is used to indicate entries to be typed at the keyboard, operating system commands, file and directory names, and screen text. For example:
>
> The file is located in the `DII_DEV` directory.

1. System Overview

The Defense Information Infrastructure (DII) Common Operating Environment (COE) Version 3.2.0.0 Kernel Patch 1 for Solaris 2.5.1 encompasses the following changes:

C The runtime tool COEInstaller now supports helper functions. Helper functions are "bolt-ons" invoked by the DII COE tools whenever the tools encounter a segment descriptor they are unable to process. The *DII COE Version 3.2.0.0 Programmer's Manual for Helper Function* provides a description of helper functions and how to create them.

C Multiple account groups are supported. That is, a segment can now belong to more than one account group.

C Patches can be installed from the network.

C Any logout process now runs to completion without being terminated by its parent.

C During profile switching, execution of login processes for the newly selected profile are now supported.

C The ReqrdScripts are now extendable for global profiles with Security Administration and System Administration account group types.

C Several enhancements and fixes to the Name Information Service (NIS) options (i.e., NIS Initialization, NIS Remove, and Add NIS Client on Solaris) have been made.

Refer to Section 3.2, *Software Changes*, for details on the above modifications.

2. Referenced Documents

The following documents are referenced in this Version Description Document (VDD):

C DII.3200.HPSOL.Helper.PM-1, *Defense Information Infrastructure (DII) Common Operating Environment (COE) Version 3.2.0.0 Programmer's Manual for Helper Function (HP-UX 10.20/Solaris 2.5.1)*, September 26, 1997

C   DII.3200.Sol251.KernelP1.IG-1, *Defense Information Infrastructure (DII) Common Operating Environment (COE) Version 3.2.0.0 Kernel Patch 1 Installation Guide (Solaris 2.5.1)*, September 26, 1997

C DII.3200.Sol251.Kernel.VDD-1, *Defense Information Infrastructure (DII) Common Operating Environment (COE) Version 3.2.0.0 Version Description Document for the Kernel (Solaris 2.5.1),* July 25, 1997.

3. Version Description

3.1   Inventory of Materials Released

C <u>Magnetic media</u>: Two 8mm tapes consisting of a relative tar of the DII COE Kernel Patch 1, Version 3.2.0.0P1 (Solaris 2.5.1)

C <u>Soft-copy Documentation</u>: One 3.5" floppy diskette (WordPerfect 6.0 for Windows format) containing the *Defense Information Infrastructure (DII) Common Operating Environment (COE) Version 3.2.0.0 Version Description Document for the Kernel Patch 1 (Solaris 2.5.1)*, Document Control No. DII.3200.Sol251.KernelP1.VDD-1, September 26, 1997

C <u>Hard-copy Documentation</u>: Two hard copies of the aforementioned VDD.

3.2   Software Changes

3.2.1   DII COE Kernel Software Changes

Refer to the following table for a list of software changes for the DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1). The software changes are listed in order of INRI Number. In addition to these changes, the runtime tool COEInstaller was enhanced to support helper functions.

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) Software Changes
Total Software Changes: [17]
INRI Number: RTO00001416 **Agency Number**:   D70651 **Short Description**: Problem exiting the NIS configuration. **Long Description**: The Network menu > Servers option > Set NIS option > Initialize NIS option does not provide the capability to exit the NIS configuration. The user had to exit the window using the Motif CLOSE (ALT-F4) option, which halted the process even though an entry "+" was still made in the /etc/group file. Because of this entry, attempts to perform an "su - 'user'" resulted in a "Bus error" message and an unsuccessful attempt to switch users. Although the Remove NIS option could have been used to undo the changes, a Cancel button should be added to the Set NIS option so the user can exit without making any changes. In addition, adding a Cancel button also would make the Set NIS option more consistent with other system windows.
INRI Number: RTO00001536 **Agency Number**:   D70661 **Short Description**: The Add NIS Client option does not allow the user to exit the option without adding a NIS client. **Long Description**: On Solaris, the Add NIS Client option does not allow the user to exit the option without adding a NIS client. (Note that leaving the window entries blank, however, does not appear to cause system problems.) The user should be able to exit the option without adding a NIS client.
INRI Number: RTO00001537 **Agency Number**:   None. **Short Description**: The Add NIS client option should present an error message if the user tries to add a duplicate NIS client. **Long Description**: The user should receive an error message when attempting to add a duplicate NIS client. Currently, the Add NIS client option continues without warning but does not appear to have any negative results.

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) Software Changes

INRI Number: RTO00001539

Agency Number: D70341

Short Description: Patch segments cannot be installed from the network.

Long Description: Patch segments can be installed from tape but not from the network (NETWORK option in the Select Source window, Device panel). When attempting to install a patch from the network, the following error message appears: "Unable to get [VERSION] descriptor information. Couldn't get the patch number."

INRI Number: RTO00001541

Agency Number: D70665

Short Description: A window prompting the user to reboot the machine should appear after NIS+ client initialization.

Long Description: A window with the message "Please reboot this machine" should appear after the user initializes a NIS+ client on Solaris and IBM. This window appears after NIS client initialization on HP.

INRI Number: RTO00001554

Agency Number: D70605

Short Description: The Process Manager does not run logout processes upon logout.

Long Description: The Process Manager does not run the commands in the session logout file upon logout. Instead, the commands are being run at the next login. This problem was tested as a basic JMCIS user. This problem has no workaround.

INRI Number: RTO00001645

Agency Number: D70367

Short Description: The Reserved field of $DISK is not working correctly.

Long Description: An ORACLE client segment was built with the following entry in the SegInfo file: $DISK:5100:3000000. 300MB was to be reserved. Prior to installation, the Reserved field of the Available Disks panel in the COEInstaller window showed 291.33 MB for the targeted disk. After installation of the ORACLE Client segment, the "Reserved" field still showed 281.33 MB. Apparently, the Reserved field of $DISK is not working correctly. 300MB should have been added to the 281.33MB value.

INRI Number: RTO00001646

Agency Number: D70368

Short Description: Multiple account groups cannot be specified.

Long Description: Page 5-94 of the I&RTS that the user may have "one or more $SEGMENTS lines" in the SegName file, which would allow the segment to belong to more than one account group. It appears, however, that only the first $SEGMENT is recognized when a segment is loaded.

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) Software Changes

INRI Number: RTO00001830

Agency Number: D70559

Short Description: The /rhosts file created during the addition of an NIS client to the NIS server is owned by root; it should be owned by secman.

Long Description: The /rhosts file, which is created in the secman home directory during the processing of adding an NIS client to the NIS server via the Network/NIS menu, is owned by root. This prevents it from being read. Ownership should be secman.

INRI Number: RTO00001831

Agency Number: D70558

Short Description: When removing NIS from a client via the Network/NIS menu, the /etc/nnswitch.conf is not updated to remove the NIS+ references.

Long Description: When removing NIS from a client via the Network/NIS menu, the /etc/nnswitch.conf is not updated to remove the NIS+ references.

INRI Number: RTO00001838

Agency Number: D70556

Short Description: The Menu bar and classification banner fail to appear on certain workstations when using a global account.

Long Description: The Menu bar and classification banner fail to appear when using a global account from a workstation that does not have the account group loaded and requires a menu option to be displayed. Although this error can be corrected by loading all account groups on every workstation, DII COE should not attempt to load a menu for which the data doesn't exist. Or, if the data is loaded, the menu bar and classification banner should not be terminated.

Also, when a global user logs onto a workstation (one that does not have all the applications that appear in the user's profile locally loaded) and selects an icon, the user should get an indication that the application is not available -- instead of nothing happening.

INRI Number: RTO00001839

Agency Number: D70551

Short Description: The ReqrdScripts fails to update the ./global/Profiles/<account group default when a new segment is loaded.

Long Description: The ReqrdScripts fails to update the ./global/Profiles/<account group default when a new segment is loaded. However, it updated the local/Profiles directory. This problem prevents an account group environment from being extended. Since the SA and SSO account groups cannot be modified, the extentions must be placed in the appropriate profiles directory.

Work-around: Source the /h/AcctGrp/<account group>/Scripts.cshrc.<extension> files instead. The global profiles then work since the SegInfo directive causes this area to be properly updated.

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) Software Changes

INRI Number: RTO00001863

Agency Number: D70568

Short Description: When initializing a NIS client via the Network>NIS menu, the hostname of the NIS server is required, not its IP address.

Long Description: When initializing an NIS client via the Network>NIS menu, the hostname of the NIS server is required, not its IP address. This requires that the NIS server hostname be added to the local /etc/hots file. Since usr/lib/nis/nisclient can accept either the NIS server hostname (-h option) or NIS server IP (-a option), the initialization should not require the sysadmin to edit the /etc/host file and should allow the entry of the IP address.

INRI Number: RTO00001882

Agency Number: None.

Short Description: Enhance Initialize NIS option to provide COEMsg concerning need to update exports and mounts for global user creation.

Long Description: Upon successful completion of the NETWORK > SERVERS> SET NIS > INITIALIZE NIS option, a message window should provide direction for the System Administrator to update exports and mounts in order for global accounts and profiles to be utilized. Configuration of NIS or NIS+ does not automatically provide this capability. The user must ensure that:
a) /h/USERS/global is properly exported on the master machine
b) the client has mounted the master's /h/USERS/global
c) the master needs to have its clients as trusted if options such as the Remote Security Manager are to be successfully run.
Providing this type of insight via an information message will assist in the end user being able to complete the necessary thread of creating global users.

INRI Number: RTO00001889

Agency Number: None.

Short Description: For NIS Remove option, improper error message appears when the user answers NO to removing NIS.

Long Description: Upon selection of the Sysadmin option NETWORK > SERVERS > SET NIS > REMOVE NIS, the user is prompted "Do you wish to disable and remove NIS?" However, selection of the NO option results in the notification that NIS has been removed and the user should reboot. This error message is incorrect since the removal of NIS is halted and the user does not actually have to reboot the system.

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) Software Changes
INRI Number: RTO00002016 **Agency Number**:   D70565 **Short Description**: Invalid file owner/group assignment **Long Description**: The owner/group settings on the dot files stored in the scripts directory in /h/USERS/(global or local/Profiles/<profile name> directory have an owner/group setting that is unknown to the system. The DII COE should not allow uids and gids to be used which are not valid on the current system.
INRI Number: RTO00002017 **Agency Number**:   D70552 **Short Description**: Menu items fail to execute. **Long Description**: The SysAdm and TBMCS account groups both have menu bar items. When using global locking and global users and assigning both account groups to a single user (also assuring all groups have been assigned to the user), the menu bar selections may or may not work when both profiles are active. It turns out that in order to insure that the menu items are executable, you must select the profiles in a certain order when the profile selection window appears during user login. The user must first select the SA_Default and then the TBMCS_Default to assure proper menu bar execution.

> **NOTE**: Government Software Problem Report (GSPR) D70551 has been addressed for Security Administration and System Administration account groups. See Section 6, *Release Notes*, for details on how to extend the environment for global profiles with other account group types.

In addition, this delivery contains enhancements to the COEInstaller to support the Helper Function capability.

3.2.2   DII COE Kernel COTS and GOTS Software Changes

Refer to the following table for a list of software changes for the DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1). The software changes are listed in order of INRI Number.

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) COTS and GOTS Software Changes
Total Software Changes: [1]

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) COTS and GOTS Software Changes
INRI Number: RTO30000177
Agency Number: D70547
Short Description: When adding a Unix group via the Secman security manager it failed to update the group NIS table
Long Description: When adding a Unix group via the Secman security manager it failed to update the group NIS table. This was also intermittent.

4. Installation Instructions

Refer to the *DII COE Version 3.2.0.0 Kernel Patch 1 Installation Guide (Solaris 2.5.1)* for instructions on installing the DII COE Version 3.2.0.0 Kernel Patch 1. This patch requires the system to already be loaded with the DII COE Version 3.2.0.0 Kernel.

5. Known Problems and Errors

Refer to the following table for a list of known problems and errors for the DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1). The known problems and errors are listed in order of INRI Number.

> **NOTE**: The COEInstaller was modified to support Helper Functions in the DII COE Version 3.2.0.0 Kernel. The COEInstaller problems listed here are not specific to this DII COE 3.2.0.0 Kernel Patch 1; however, these problems surfaced during Helper Function Utility Version 1.0.0.1 testing.

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) Known Problems and Errors
Total Known Problems and Errors: [4]
INRI Number: RTO00001928
Agency Number: None.
Short Description: COEInstaller successfully installs segments even when helper function executables are missing.
Long Description: Any segments that pass VerifySeg install successfully with the COEInstaller even if the helper function executable is not present. The COEInstaller should fail installation of a segment that contains a helper function descriptor if the helper function executable fails to execute or returns with a failure status.

DII COE Version 3.2.0.0 Kernel Patch 1 (Solaris 2.5.1) Known Problems and Errors
INRI Number: RTO0000001957
Agency Number: None.
Short Description: Segments are successfully installing when the clean up database is not present.
Long Description: A segment will successfully install via the COEInstaller when the hf_cln.idx file is missing from /h/COE/data. The installation should fail if the database is missing. This results in the cleanup function not being executed when the segment is successfully installed.
INRI Number: RTO00002028
Agency Number: None.
Short Description: Installer allows multiple configurations to be installed when configurations are on a single tape.
Long Description: Created two configurations on a single tape and read the tape via the Installer. The 'Select Software to Install' portion of the Segment Installer window was properly updated with those configurations when the tape was read. If the user selects each configuration separately (versus using the Select All popup option) the Installer allows both configurations to be installed, assuming no configurations were already installed. Work-around: User should only select one configuration per workstation and/or only one configuration should be placed on a media device.
INRI Number: RTO00002029
Agency Number: None.
Short Description: User is able to install multiple configurations when configuration is opened via the arrow button or computer bitmap.
Long Description: After successfully loading a single configuration, a second tape was read that contained two more Configurations. If either the arrow button or the computer bitmap located in the left column of the Select Software portion of the Segment Installer window is used to open the configuration, the Installer allows the installation when it should not. Work-around: User should only select one configuration per workstation.

6.   Release Notes

Refer to the *DII COE Version 3.2.0.0 Version Description Document for the Kernel (Solaris 2.5.1)* for more information about the DII COE Version 3.2.0.0 Kernel.

The following release notes apply specifically to DII COE Version 3.2.0.0 Kernel Patch 1.

1. In order to extend the environment for global profiles with account group types other than Security Administration and System Administration, the `.cshrc.{account group prefix}` must be referenced by a full path in the account group's `.cshrc` file. For example, the `/h/AcctGrps/SysAdm/Scripts/.cshrc`file should contain the line:

    `source /h/AcctGrps/SysAdm/Scripts/.cshrc.SA`instead of `source ./.cshrc.SA`.

2. When running as a global user, applications (from either menus or icons) must be accessible from your workstation or the application launch will fail. For example, if you are logged in as a global user and want to run a particular application, the segment that provides that application should be loaded on your local workstation.